



HOW-TO BOOKLET #3140

HERBS

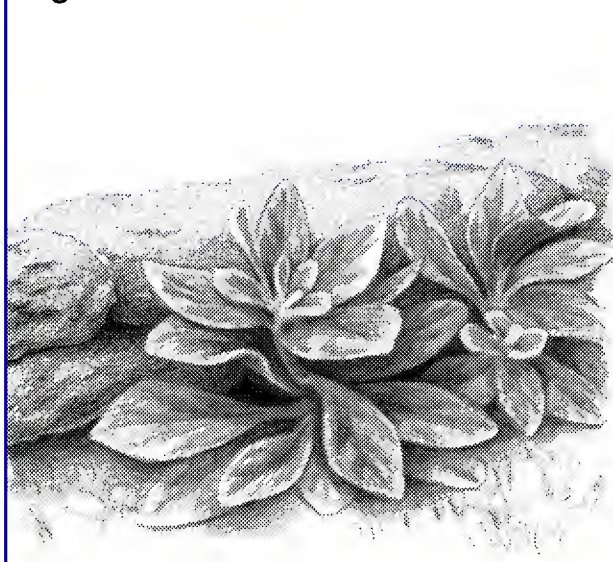


TOOL & MATERIAL CHECKLIST

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Spade | <input type="checkbox"/> Garden Fork |
| <input type="checkbox"/> Tine Rake | <input type="checkbox"/> Small Containers |
| <input type="checkbox"/> Seeds | <input type="checkbox"/> Fluorescent Light |
| <input type="checkbox"/> Potting Soil | <input type="checkbox"/> Household Spray Bottle |
| <input type="checkbox"/> Fertilizer | <input type="checkbox"/> Garden Hose |

Read This Entire How-To Booklet For Specific Tools and in The Basics Listed Above

Fig. 1: Lamb's-ears



Herbs are a fascinating group of plants with a history of cultivation back to the dawn of civilization. In the past, the family herb project, necessary for supplying flavorings for the kitchen and family. Today gardeners are more likely to grow herbs for their pleasing fragrances, and tasty flavors than for medicinal purposes. If your interest is kindled by history, taste, aroma, or beauty, you'll find a great addition to your garden.

In this How-To Booklet, we'll introduce these useful plants and the best ways of using them in your home landscape, and outline the steps for growing them.

WHAT IS AN HERB?

Simply put, any plant useful to human beings is an herb. The oregano in your pizza are herbs. The cotton in your jeans and the indigo dye that colors your jeans are herbs. Your perfume may incorporate fragrant oils from roses; if you may take the drug digitalin, extracted from foxgloves. The insecticide from the painted daisy, may protect other plants in your garden from insects. On and on—we encounter herbs and herb products every day.

Gardeners usually take a narrower view of herbs when selecting them for the garden. We focus on plants used as seasonings for food, those with noteworthy fragrances, and, increasingly, those that please the eye. We grow angelica, basil, chives, marjoram, rosemary, tarragon, and thyme for their flavorful leaves. Coriander, dill, and mustard provide tasty seeds. For scent, we plant geranium, mint, sage, sweet woodruff, and wormwood. And we grow lamb's-ears for its soft, silver leaves; bee balm for its fiery flowers; and germander for its compact form, ideal for an herbal hedge.

HERBS IN THE HOME LANDSCAPE

With such a wide variety of flower, foliage, and form to choose from, you can consider herbs for a spot in a flower bed or border just like you would any other annual, perennial, or shrub. Take advantage of aromatic herbs like lavender, clary sage, and clove pinks, whose scent wafts through the air, by placing them near seating or upwind of open windows. Place herbs such as mint and sage, whose leaves or flowers must be crushed to release their fragrance, within easy reach or, if they bear light foot traffic, as do chamomile, pennyroyal, and thyme, plant them between flagstones on a path or patio.

Fig. 2: Lemon grass



You may wish to explore the long tradition of herb gardens. If your interests are culinary, it is convenient to plant herbs used for food and flavoring near the kitchen. Such kitchen gardens are often small, perhaps laid out geometrically in a square or circle. You might divide the planting with narrow paths of wood chips or brick, which emphasize the geometry and provide easy access. If you're ambitious, consider a knot garden, where low hedges of box, germander, or santolina establish an outline and backdrop for an infill of other herbs, often with foliage or flowers in contrasting colors. ("Knot" refers to the intertwining pattern of the outline.)

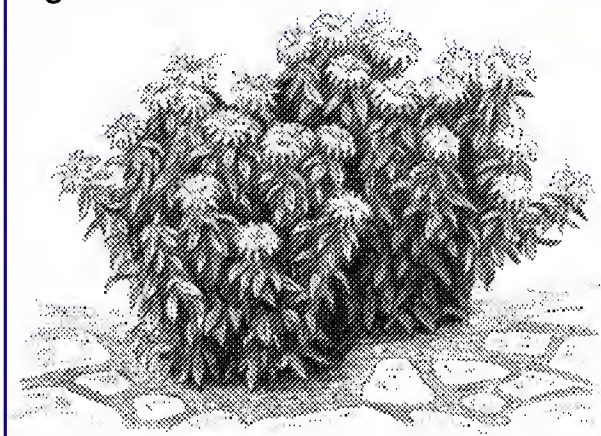
Herbs are also good candidates for rock gardens. Plant herbs such as creeping thyme, artemisia, and low-growing sages in soil filling the spaces between stones in a wall or rocky outcrop (natural or man-made). Several herbs, including chamomile, thyme, and germander, are fine ground covers. If your garden is restricted to a patio or balcony, mint, chives, basil, bay and many other herbs make excellent pot plants.

CHOOSING HERBS

In addition to its taste, aroma, flowers, foliage, and form, you should consider an herb's preferences for growing conditions. Most herbs thrive in fertile, well-drained soil in a sunny location. Many tolerate heat and dry conditions; few survive in soggy soil. Some herbs, such as dill, are annuals, but most are perennials and must therefore be able to withstand the rigors of seasonal change. The common measure of this ability is the minimum temperature a plant can survive. If you want to grow an herb that is too tender for your winters, plant it in a pot and overwinter it indoors.

Plants adapted to the conditions of your area (soil, temperatures, rainfall, and so on) are more likely to succeed for you and to require less regular care. Knowledgeable staff at a nursery or garden center can offer valuable help in identifying plants well suited for your region and for your purposes.

Fig. 3: Bee balm

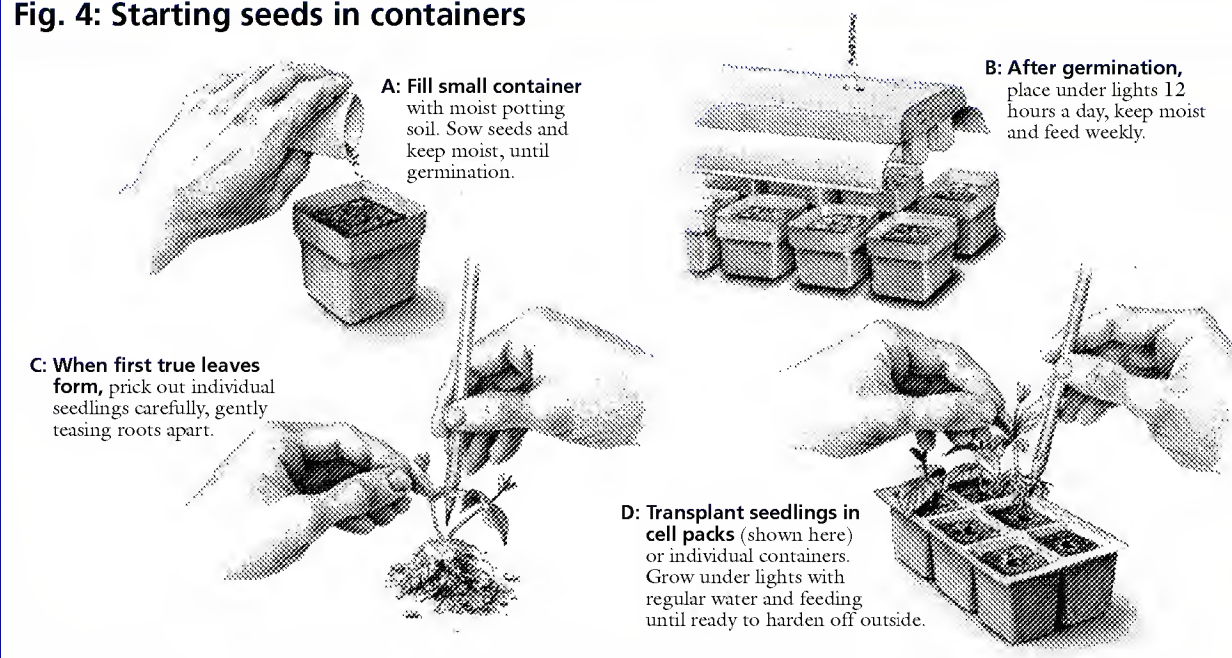


PREPARING A PLANTING BED

Contrary to popular belief, most herbs, like most other garden plants, do best in fertile soil whose texture allows roots to penetrate easily and moisture to drain readily. You can improve even the poorest of soils simply by adding organic matter when you dig a new bed or rejuvenate an old one. Common organic soil amendments include compost, rotted manure, and peat moss. (If you're concerned about immediate soil fertility, add 1-1/2 to 2 lb. of 10-10-10 granular fertilizer per 100 sq. ft. to a new bed.) While organic amendments will benefit almost all soils, they may not correct more specific problems. To learn more about your soil and what it may need, call your Cooperative Extension agent and ask about soil-testing services in your area; these are often inexpensive and provide detailed recommendations.

The first step in digging a new bed is outlining its perimeter. You can tie string to stakes for beds with straight sides; use a garden hose or make lines with powdered horticultural lime for undulating shapes. Next, remove existing vegetation. You can lift turf as you dig, composting it or burying it upside down at the bottom of the new bed. For

Fig. 4: Starting seeds in containers



SOME FAVORITE HERBS

CULINARY	FRAGRANT	GOOD LOOKS
Anise	Leaves	Artemisia
Basil	Angelica	(various)
Bay	Basil	Bee balm
Borage	Bay	Calendula
Caraway	Catnip	Chives
Chervil	Lavender	Feverfew
Chives	Lemon balm	Flax
Coriander	Lemon thyme	Foxglove
Cumin	Lemon verbena	Geranium
Dill	Lovage	Germander
Fennel	Mint	Hyssop
Garlic	Oregano	Lady's-mantle
Lemon balm	Rosemary	Lamb's-ears
Lemon grass	Sage	Lavender
Lemon verbena	Santolina	Nasturtium
Lovage	Scented geranium	Purple basil
Marjoram	Sweet marjoram	Purple coneflower
Mint	Sweet woodruff	Rose
Mustard	Tansy	Rue
Oregano	Tarragon	Salvia (various)
Parsley	Thyme	Santolina
Rosemary	Wormwood	Sweet woodruff
Sage (garden)	Flowers	Thyme (various)
Sage (pineapple)	Bee balm	Violet (various)
Sorrel	Chamomile	Yellow chamomile
Sweet cicely	Dianthus (pinks)	
Sweet woodruff	Lady's-mantle	
Tarragon	Lavender	
Thyme	Rose	

large weed-infested areas, you may want to apply a nonspecific herbicide, which will kill all plants it touches. If you want to avoid toxic chemicals, you can smother weeds and turf by spreading a layer of black plastic over the site for several weeks in the heat of summer.

Two methods of digging a new bed are common. For most soils and most herbs, "single-digging" to the depth of a spade (8 to 10 in.) is sufficient, aerating the soil while allowing you to remove rocks and roots and add several inches of organic amendments. "Double-digging" goes twice as deep, allowing the addition of more amendments and the deeper aeration of poorer soils or poorly drained soils.

Poor drainage is the bane of many herbs. To test the drainage of your soil, dig a hole about 1 ft. deep and fill it with water. If all the water is gone 24 hours later, drainage is fine. If some remains,

you can improve matters by adding organic material to the soil. If most of the water remains, you may want to consider making raised beds with imported topsoil, or consult knowledgeable staff at a nursery or your Extension agent for advice on drainage systems.

STARTING PLANTS FROM SEEDS

You can start herbs from seeds or purchase plants from a nursery or garden center. Starting from seeds is less expensive, but it takes more time and effort. Some herbs must be purchased as plants, because seed-grown plants may not produce the desired characteristics.

Direct seeding. Annual herbs and a few perennials are sometimes sown directly where they are to grow (some plants do best when direct sown). Seed packets are dependable sources of basic information on planting—when, how deep, how long until germination. After preparing the soil as previ-

ously described, rake it smooth and sow the seeds evenly on the surface if you're carpeting an area with plants (creeping thyme, for example). Or sow 3 to 5 seeds in a spot where you wish to grow a single plant; you'll thin to the strongest seedling later. Cover the seeds with a fine layer of soil, if recommended on the packet, then water thoroughly. The key to success is to keep the seeds moist until they germinate. A layer of straw or a covering of light horticultural fabric can help conserve moisture.

When the plants are large enough to work with, thin to the recommended spacing and continue to water regularly (do so even for drought-tolerant plants) until growth is well established. For perennial herbs, this extra attention may be needed throughout the first season.

Seed starting in containers. Direct seeding can be risky. A sudden cold spell, a torrential rain, or hot drying winds can reduce germination or wipe out little plants. Starting seeds in containers and growing them under controlled conditions into robust seedlings avoids these problems. The method shown in **Fig. 4** works well. All of the necessary materials can be purchased at a nursery or garden center.

Sow seeds in 4-in. plastic containers filled nearly to the top with moist potting soil. Wet the sown seeds with a household spray bottle and set the pots in a warm part of the house out of direct sunlight. Keep seeds moist by spraying or by enclosing the containers in plastic bags. When the seeds have germinated, place the containers under lights for at least 12 hours a day. Whenever the potting soil dries out, set the containers in a shallow tray filled with water so the soil absorbs water from the bottom, which encourages deep rooting. (Remember to remove the containers and allow them to drain.) Feed the plants once a week with a soluble fertilizer diluted to one half or one quarter the ordinary rate. Raise the lights as the plants grow to keep the tubes about 2 in. above the top leaves.

After the plants have developed their first true leaves, transplant the seedlings to individual containers. Four- or six-cell plastic packs work well for small plants; use 3-in. or 4-in. pots for plants that quickly grow large. Fill the cells or pots with fresh, moistened potting soil. Holding a seedling gently by a leaf, prick it out of its pot with a sharpened pencil, taking care to disturb its roots and attached soil as little as possible. Poke a hole in the soil of the new cell or container, insert the seedling, and fill around it to bury the roots. Larger seedlings

can be suspended in an empty cell while you add potting soil around the roots. Place the cell packs or individual containers under lights again, watering and feeding as before.

When the seedlings are large enough to put in the garden (after the last frost for tender plants), they need to be acclimated to conditions outdoors. Begin with a few hours in a spot protected from direct sunlight and wind, increasing to full exposure over several days.

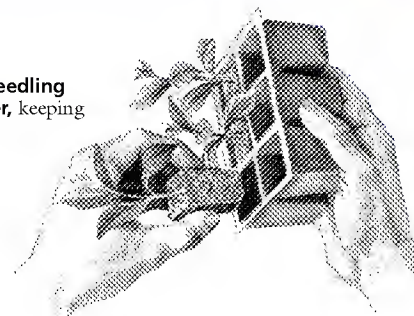
TRANSPLANTING INTO THE GARDEN

The procedure for setting container-grown plants in the garden is the same for plants you've grown from seeds and for those you purchase. Space the plants according to their mature size. Closely spaced perennial herbs will fill in more quickly, but they can become ungainly or unhealthy as mature plants become crowded. A mulch of compost, bark chips, or grass clippings helps conserve moisture, improves the soil, and keeps weeds down while young plants are small.

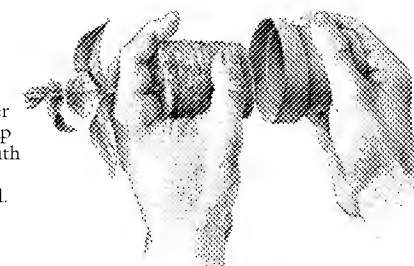
Before transplanting, water the container and let it drain until the soil is moist but not soggy. Try to disturb the root ball as little as possible as you slide it from the cell or pot, as shown in **Fig. 5**. Gently loosen congested roots on the bottom and lower sides of the root ball; unwrap any that encircle the ball. Place the plant into a hole in the prepared bed slightly larger than the root ball and deep enough to position the top of the root ball at soil level. Fill the hole about halfway with soil, then soak the root ball with water, let it drain, and then add the remaining soil, firming it gently around the stem. Water is crucial for new plants; if nature doesn't oblige, provide 1 in. per week for the growing season—even for drought-tolerant plants. Herbs that are adapted to the conditions of your region and site should, once they're established, require minimal care.

Fig. 5: Transplanting outdoors

Gently slide seedling from container, keeping root ball intact.



Don't pull on the stem; slip fingers on either side of it and tap on container with other hand to loosen root ball.



Set in planting hole even with soil surface. Fill and lightly tamp soil, and water well.

